

REMARKS

By this Amendment, applicants have cancelled the withdrawn claims, i.e., Claims 10-17 and 25-27, and have added new Claims 28-37 to depend from allowed method Claim 23.

The Examiner has rejected Claim 24 under 35 U.S.C. §102(e) as anticipated by Marino. With the cancellation of Claim 24 herein, this ground of rejection is rendered moot.

The Examiner has rejected Claims 1, 2, 4-9, 20 and 21 under 35 U.S.C. §102(e) as anticipated by Bianchi et al. U.S. Patent No. 6,033,438 ("Bianchi et al."). Bianchi et al. discloses an open intervertebral spacer, one embodiment of which, a threaded dowel, is illustrated in Fig. 14 to which the Examiner makes particular reference. The Examiner views threads 542 of the implant as structurally and functionally equivalent to the "at least two tabs possessing a configuration and dimensions complementing the configuration and dimensions of corresponding preformed recesses within a vertebral body" limitation of the rejected claims. This is not at all the case. The Bianchi et al. implant is designed to be screwed into a corresponding internally threaded chamber. This action requires that the implant be rotated several times for its complete insertion in the threaded chamber, i.e., about 9 rotations in the case of the embodiment illustrated in Fig. 14. Applicants' claimed intervertebral implant requires merely a half turn to provide the locking action of the implant within the preformed recesses of the vertebral implants. The Bianchi et al. implant is incapable of functioning in this manner.

Accordingly, Claims 1, 2, 4-9, 20 and 21 are believed to define patentable invention over Bianchi et al.

The Examiner has rejected Claim 22, which is directed to a bone-derived implant having a demineralized surface, under 35 U.S.C. §103(a) as obvious over Bianchi et al. in

view of Lewandrowski et al. Applicants have previously commented upon the lack in Bianchi et al. of a structure corresponding to or suggesting the "at least two tabs" structure of applicants' claimed implant. As for Lewandrowski et al. and its teaching that demineralization enhances bone osteoinductive properties, there is no disclosure or suggestion that demineralization be confined to the surface of an implant. Applicants' implant possesses a superficially demineralized surface lying upon a non-demineralized interior, i.e., a core made up of mineralized bone and exhibiting the desirably high mechanical strength characteristics of non-demineralized bone. Applicants' claimed implant at its surface presents non-demineralized bone which encourages new bone growth and, as a result, accelerated integration of the implant with the vertebral bodies in contact therewith, and in its interior, offers the high level of mechanical strength needed to effectively withstand the mechanical forces which it can be expected to encounter following implantation.

In view of the foregoing, Claim 22 is believed to define patentable invention over the combined disclosures of Bianchi et al. and Lewandrowski et al.

Reconsideration and allowance by the Examiner of Claims 1, 2, 4-9 and 20 and 22, and favorable consideration and allowance of new Claims 28-37 which depend from allowed Claim 23, are respectfully requested.

Respectfully submitted,



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